

**WHAT IS CLAIMED IS:**

1. A liquid crystal display device comprising:  
a liquid crystal layer;  
a pair of electrodes for use to apply a voltage to the liquid crystal layer; and  
at least one inorganic alignment film, which makes direct contact with the liquid crystal layer and which is made of a crystalline conductive film where crystal grains are oriented in a predetermined direction preferentially.
2. The device of claim 1, wherein the at least one inorganic alignment film functions as at least a portion of the pair of electrodes.
3. The device of claim 1, wherein the crystalline conductive film has a groove, which extends in a direction associated with the predetermined direction and which faces the liquid crystal layer.
4. The device of claim 1, wherein the crystalline conductive film is made of indium tin oxide, Al or an Al alloy.
5. The device of claim 1, wherein the crystalline conductive film has a degree of crystallinity of at least

about 60%.

6. The device of claim 1, wherein the crystal grains have a cubic crystalline structure, and

wherein the predetermined direction is  $\langle 111 \rangle$  directions of the crystal grains.

7. The device of claim 6, wherein the crystalline conductive film has a diffraction intensity ratio of about 0.25 or less in an X-ray diffraction pattern, the diffraction intensity ratio being defined by  $I(400)/I(222) \equiv I_p$ , where  $I(400)$  represents a peak intensity of a (400) plane and  $I(222)$  represents a peak intensity of a (222) plane.

8. The device of claim 5, wherein the crystal grains have a cubic crystalline structure, and

wherein the predetermined direction is  $\langle 110 \rangle$  directions of the crystal grains.

9. The device of claim 1, wherein the crystalline conductive film is made of indium tin oxide and exhibits a transmittance of about 70% or more with respect to a light ray having a wavelength of about 400 nm and a transmittance of about 80% or more with respect to a light ray having a wavelength of about 550 nm when the thickness of the

crystalline conductive film is 120 nm.

10. The device of claim 1, further comprising: an illumination optical system for illuminating the liquid crystal layer with light; and a projection optical system for projecting the light that has been transmitted through the liquid crystal layer.

11. A method for fabricating a liquid crystal display device, the device including: a liquid crystal layer; a pair of electrodes for use to apply a voltage to the liquid crystal layer; and at least one inorganic alignment film, which makes direct contact with the liquid crystal layer and which is made of a crystalline conductive film, the method comprising the steps of:

forming the crystalline conductive film, in which crystal grains are oriented in a predetermined direction preferentially, on a substrate; and

forming the liquid crystal layer on the crystalline conductive film.

12. The method of claim 11, further comprising the step of irradiating the crystalline conductive film with an energy beam at an angle that is associated with the predetermined direction.

13. The method of claim 12, wherein the step of forming the crystalline conductive film includes the step of forming the crystalline conductive film in which the crystal grains have a cubic crystalline structure and are oriented in  $\langle 111 \rangle$  directions thereof, and

wherein the step of irradiating the crystalline conductive film with the energy beam includes the step of irradiating the crystalline conductive film such that the energy beam defines an angle of incidence of about 30 degrees to about 50 degrees with respect to a normal to the surface of the substrate.

14. The method of claim 12, wherein the step of forming the crystalline conductive film includes the step of forming the crystalline conductive film in which the crystal grains have a cubic crystalline structure and are oriented in  $\langle 110 \rangle$  directions thereof, and

wherein the step of irradiating the crystalline conductive film with the energy beam includes the step of irradiating the crystalline conductive film such that the energy beam defines an angle of incidence of about 35 degrees to about 55 degrees with respect to a normal to the surface of the substrate.

15. The method of claim 12, wherein the step of

irradiating the crystalline conductive film with the energy beam includes the step of irradiating the crystalline conductive film with at least one energy beam that is selected from the group consisting of an excimer laser beam, an ultraviolet ray, an electron beam and a particle beam.